COURSE *of* STUDY

for

ELEMENTARY SCHOOLS OF ARIZONA

BULLETIN NUMBER ONE

1932

STATE DEPARTMENT OF EDUCATION
PHOENIX, ARIZONA
C. O. CASE, STATE SUPERINTENDENT

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THE ARIZONA PRINTERS, INC.

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Subject-Matter Committees: (See separate bulletins.)

FOREWORD

The last course of study for the elementary schools was prepared and issued in 1923. Since that time there have been considerable changes in methods of teaching and in educational philosophy. Increasing attention has been directed toward the child as the center of the educational organization. The conviction has steadily grown that the public schools should provide adequate and satisfactory learning conditions for the children of the state. The teachers are properly conceived of as leaders who help children learn.

In this work of the teacher a good course of study can be of much help. The courses in the various subjects as outlined in this new course of study are recommended for use in all the elementary schools of the state. This recommendation is made because of the completeness of treatment combined with the sound scholarship and care which has gone into the preparation of courses.

The teacher should use the course of study effectively. She should study the introduction to the course in each subject. She should read and study the entire course; it is not sufficient that she read merely the part dealing with her own grade and subject. She should note the aims, the content, the methods, the standards of attainment, and the bibliography. She should select and adapt content and method bearing in mind that while the material is specific and suggestive it is not designed to restrict teacher initiative.

The course of study is intended for use in the schools of the state. Copies are available for each of the teachers in the public elementary schools. They should be given the same care as are books supplied by the state. When a teacher leaves the school the course of study bulletins should be left for the use of the succeeding teacher.

At the beginning of the course in each subject will be found the names of teachers and others who have helped in its preparation. While mention of the services of these people is made in the formal "Acknowledgements," I wish to express my personal gratitude to those people who have given without stint of their time and energy in order that a good course of study might be provided, and especially do I wish to express my appreciation and that of the State Board of Education for the high professional service that Dr. Emil L. Larson, of the University of Arizona, the Director and Supervisor of this course, has given without cost to the state.

C. O. CASE,
State Superintendent of Public Instruction.

Part I.

INTRODUCTION

The present program of curriculum construction and revision was initiated January 16, 1932. At a meeting of the state board of education held at Phoenix on that date it was decided to proceed with the revision of the present course of study for elementary schools. Dr. Emil L. Larson, of the University of Arizona, was requested to direct and coordinate the work of individuals and groups which might contribute to the task of revision.

No money had been appropriated or made available for the task of curriculum revision, so the work of committees has all been placed on the basis of voluntary effort and contributions. All who have taken part in this work have done so in addition to their regular duties in the schools of the state. Because of this fact the completion of courses has been delayed; too, the material included is based largely on the findings of other research groups rather than on original studies carried on within this state.

The state board of education chose three of its members,—C. O. Case, C. K. Davis and D. M. Hibner—to serve as an Executive Committee. This committee assumed as its chief work the task of advising with the director, determining policies, and passing final judgment on the work of subsidiary committees.

The Advisory Committee, composed of the ten members as listed on page 6 of this bulletin, has performed a number of duties. It has had the task of making all research studies essential to good curriculum construction in Arizona. It has also checked and made available to subject-matter committees pertinent research carried on elsewhere. It has determined the defensible aims of education and the selection of those subjects which might best contribute to the achievement of these aims. It has also arranged what appears to be the most satisfactory grade placement of subjects, the time to be allotted for each, and a suggested program of studies for smaller schools. This work was the primary responsibility of Mr. Everet Johnson, a member of the Advisory Committee. In addition, the Advisory Committee has been responsible for choosing members of subject-matter committees, outlining methods of procedure, suggesting desirable materials, and making available criteria for judging finished courses.

Subject-matter committees have been responsible for the actual construction of courses in each of the subject-matter fields of the elementary school. Each of these committees has been composed of from one to five members. At a meeting of the Executive Committee in July it was decided to issue the course of study in the form of separate bulletins. This decision was prompted by several considerations, chief among which were variations in the time of completion of different courses and possible economies in future revisions. The names of members of production committees will appear in each course as it is published.

As suggested in the table of contents, this preliminary bulletin

attempts two things. It plans for the most effective use of the printed bulletins by outlining the pertinent data concerning the state course of study: an analysis of our present school population; a statement of the ultimate aims of education, the aims of our elementary school, and guiding principles that each committee and teacher must apply if formal education is to secure optimum results; an outline of the general plan of each course; a brief statement of the teacher's part in adapting and using the printed course; minimum time allotments; and a suggested program for one-teacher schools. It also seeks to bring together in one volume information which every teacher and citizen of Arizona should be familiar with: the flag code, flag salute, and flag etiquette as related to the national emblem of the United States; the state flag of Arizona; the state flower of Arizona; the state bird of Arizona; the state song; and suggestions concerning conservation in Arizona. Some of these ideas will be touched on in different subject-matter courses, but are placed together here for convenience.

ACKNOWLEDGMENTS

The Executive Committee and the director in charge wish to express their deep feeling of appreciation to all who have contributed to the preparation of this course of study. The members of various committees have given willingly and gratuitously of their time and effort. The director is especially mindful of the fact that many more offers of assistance were received than could be accepted and used.

Thanks are also due to various groups who have made objective studies and carried on experimental investigations for permission to use their materials. Especial mention should be made of the National Society For The Study of Education, the Department of Superintendence, and the Research Division of the National Education Association for the opportunity of using materials from their yearbooks and bulletins. Permission to use valuable material from the Elementary School Journal and the Supplementary Educational Monographs was graciously granted by the University of Chicago. The Bureau of Publications of Teachers College, Columbia University, extended the privilege of using material from The Teachers College Record and from their books and other publications. Suggestions of content and arrangement in published courses of study have also been used and their value is recognized. Wherever material has been used especial effort has been made to give due credit.

THE ELEMENTARY SCHOOL SITUATION IN ARIZONA (1)

In planning a course of study for the elementary schools of the state it is well to have a clear picture of the present situation. The types of schools, the enrollment by ages and grades, the composition of the school population, school persistence, and transiency of pupils are elements which will play an important part in determining content and methods. Data for 1930 are most readily available and will be used to give an idea of some of the problems curriculum committees must deal with. There are some changes from year to year but they are usually too slight to affect materially the general situation.

Types of Schools. Arizona has a variety of elementary schools. The types of schools with the average daily attendance, percentage of the total attendance, and cumulative percentages are given below. (Data for 1929-1930).

Type of School	Number	Attendance	Percentage of Total Enrollment	Cumulative Percentage
1 teacher schools	164	2,235	3.49	3.49
2 teacher schools	75	2,335	3.63	7.12
3 teacher schools	27	1,428	2.23	9.35
4-5 teacher schools	38	3,131	4.89	14.24
6-9 teacher schools	34	6,180	9.66	23.90
10-14 teacher schools	13	4,015	6.28	30.18
15-24 teacher schools	14	7,008	10.95	41.13
25 (or more) teacher schools	23	37,635	58.80	99.93
Total	388	63,957		

A study of these data reveals that approximately nine per cent (9.35) of the total attendance is found in schools of one to three teachers. Three-fourths of the school population (100—23.90 or 76.1 per cent) are in schools with ten or more teachers. Approximately seventy per cent (69.72) of the total attendance is found in schools with fifteen or more teachers. Variation in time allotments for the different subjects in small and in large schools must be provided. The comparatively large attendance in the schools with fifteen or more teachers (or even with ten teachers) suggests the wisdom of careful consideration of some differentiation in courses and even provision for junior high schools in more of the Arizona communities.

In line with the suggestion concerning the junior high school it should be noted that the districts now in union high school districts are less free to establish and maintain junior high schools than are those whose area is included in a district high school or those entirely outside of a high school district of any kind. Detailed study has been made of this situation and the findings follow:

Elementary School Districts in		Enrollment	Per Cent of Enrollment
1. District High School District	32	27,895	43.6
2. Union High School District	107	24,995	39.1
3. No High School District	249	11,075	17.3

(1) This material first appeared in The Arizona Teacher for April, 1932. It is reproduced here with the permission of the editor, C. Louise Boehringer.

The greater number (133) of districts listed in (3) are one-teacher schools. The distribution of enrollment given here, however, indicates that some differentiation of courses in the upper elementary grades may be feasible. The possibility is worthy of further thought and study.

Enrollment by Grades. The enrollment by grades in Arizona schools for the year 1929-1930 will prove both interesting and helpful. The enrollment in the high schools for the same year is also included. It will of course be noted that the enrollment is considerably larger than the average daily attendance recorded in the previous division.

Grade	Enrollment	Percentage	Cumulative Percentage	Index Number
Kindergarten	3,544	(Not counted in percentages)		
First	22,586	26.8	26.8	100
Second	12,088	14.4	41.2	54
Third	11,037	13.1	54.3	49
Fourth	9,924	11.8	66.1	44
Fifth	8,539	10.2	76.3	38
Sixth	7,705	9.2	85.5	34
Seventh	6,334	7.5	93.0	28
Eighth	5,887	6.9	99.9	26
Total Elementary Enrollment	84,090	99.9		
Graduates—Elementary School 1929-1930				4,629
Ninth	5,610	37.6	37.6	25
Tenth	4,134	27.7	65.3	18
Eleventh	2,965	19.8	85.1	13
Twelfth	2,233	14.9	100.0	10
Total Secondary Enrollment	14,942			
Graduates—High School 1929-1930	1,859			8 (8.2)

It is quite apparent that much of the work of Arizona elementary schools is concerned with the lower grades. More than half (54.3 per cent) of the elementary school enrollment is in the first three grades and three-fourths in the first five grades. The most important implication of these findings is that work on the lower levels must be done exceptionally well. This is necessary in order that the pupil may be encouraged to continue his work in school and that he may have some rather definite achievements which will be of help to him should he drop out of school early.

Enrollment by Ages. The enrollment in Arizona schools by ages is indicated below. The greatest number of pupils is found at the age of seven and this figure is given an index number of 100.

Age	Enrollment Elementary School	Enrollment High School	Index Number Elem. School	Index Number High School	Index No. Total
5	3,897	.....	36	.....	36
6	10,312	.....	94	.....	94
7	10,984	.....	100	.....	100
8	10,554	.....	96	.....	96
9	9,816	.....	89	.....	89
10	8,656	.....	79	.....	79
11	8,479	4	77		77
12	8,228	118	75	1	76
13	7,217	916	66	8	74
14	5,403	2,762	49	25	74
15	3,217	3,540	29	32	61
16	1,197	3,473	11	32	43
17	394	2,401	4	22	26
18	112	1,415	1	13	14
19	46	596	.4	5.4	6-
20	16	261	.15	2.4	2.5
21 or over	19	269	.2	2.4	2.6

It will be noted that there is a relatively stable index until the age of fifteen when there is a decided decrease which becomes even more pronounced at the age of sixteen. The fact that sixteen is the upper limit of the ages for compulsory attendance influences this situation as does also the fact that high school opportunities are not available for all. A comparative study of the enrollment by ages and grades would suggest that over-age-ness might exist. Figures from the tenth biennial report of the state superintendent of public instruction indicate that 60 per cent of the pupils were of normal age, 34 per cent over-age and 6 per cent under-age. Part of the over-age-ness may be due to late entrance into school but available supplementary data indicate that slow progress is the greatest single factor contributing to over-age-ness. Children from foreign-speaking homes, especially Mexican, often tend to repeat the work of a grade, contribute to the slow progress totals, and swell the number of pupils in various sections who are above the average age for any particular grade. Transiency is also a contributing factor.

Transiency in Arizona Schools. Migration of inhabitants makes the work of the schools more difficult. Seasonal labor conditions affect the population of the agricultural areas of Maricopa, Pima and Pinal County. The mild climate attracts winter visitors to Maricopa and Pima County especially. Surveys of Pima County and of one agricultural region of Maricopa County indicate that more than two-fifths of the pupils attend several different schools during the school year. Data from other areas of the state are less striking but the problem of caring for the especial needs of migratory pupils is nevertheless a vital one.

The most obvious implication of the facts concerning transiency is that a somewhat uniform curriculum which may be used in various districts of the state is highly desirable if not absolutely necessary. The minimum attainments in knowledge, habits, and skills which should be achieved at the end of various units of time in each grade should be suggested. This should not in any way hamper or limit any school from providing additional

work or in making adaptations to meet the especial needs of communities or of individual pupils.

The Racial Composition of the School Population. As the school is provided to meet the individual and social needs of pupils it will be profitable to note the types with which the school has to deal. The securing of reliable data is complicated somewhat by the fact that the 1930 census classifies the Mexicans as a separate group while preceding census reports classified them with the "white" population. Some of the more pertinent data concerning the total population of Arizona are included in the following tabulation.

		1900	1910	1920	1930
(1)	Total Population	122,931	204,354	334,162	435,573
(2)	Native whites, Native Parentage	36.5%	40.4%	45.2%	48.3%
(3)	Native whites, foreign or mixed parentage	20.9%	20.7%	17.6%	8.8%*
(4)	Foreign born whites	18.2%	22.9%	23.4%	3.6%
(5)	Mexicans - number			88,464	114,173
(6)	Mexicans - per cent of population			26.5%	26.2%
(7)	Indians - per cent of population	21.5%	14.3%	9.9%	10.0%
(8)	Negroes - per cent of population	1.5%	1.0%	2.4%	2.5%
(9)	Chinese - number	1,419	1,305	1,137	1,110
(10)	Japanese - number	281	371	550	879
(11)	All others			32	558
(12)	Illiterates ten years or older - number	27,307	32,958	39,131	33,969
(13)	Illiterates ten years or older - per cent	29.0%	20.9%	15.3%	10.1%

* Figures invalid for comparison as non-Mexicans only included; previous reports included Mexicans.

It may readily be noted that the percentage of native whites in the total population is increasing. Approximately forty per cent—(3)+(4)+(6)—of the population shows the effect of foreign influence. The number of Mexicans is being decidedly decreased in some regions since the advent of the depression.

It will be worth while to note the percentages of the school population belonging to the various racial groups. In 1930 the school enrollment was distributed as follows:

	Elementary School	High School	Total
Whites	62.86%	90.75%	67.0 %
Mexicans	34.6	7.7	30.5
Negroes	1.7	1.2	1.7
Indians	.4	.12	.35
Japanese	.25	.11	.24
Chinese	.19	.12	.18

It is readily noticeable that the Mexican school population is concentrated in the elementary school, a comparatively small percentage continuing into high school. The Indian population is mostly cared for in other than the public schools of the state.

Two suggestions grow out of the data here presented. The first is that the influence of the large foreign group be recognized. Teachers of the lower grades especially should plan to provide for economical and effective learning of English—reading and composition. Adaptation and adjustment to American social customs and practices should be encouraged at the same time that the good points of foreign cultures are properly recognized and utilized. The second suggestion is that as these data are for the state at large various schools should study their own school population and meet the situation that exists. Some schools in Arizona have no Mexican or other pupils with "non-American" social background; other schools have their total school population composed of Mexican and other groups.

Comparative Trends. The greater portion of this study has dealt with conditions existing in 1930. Detailed study of previous periods would be helpful if the trend of development might be indicated. General conclusions rather than specific tabulations will ultimately be of the greater service and are outlined below.

1. The number of one-teacher schools has decreased during the last ten years while the number of larger schools has increased. In 1921 there were listed 447 districts of which 282 were one-teacher schools; in 1925 there were 406 districts of which 216 were classed as one-teacher schools; in 1930 there were 388 districts of which 164 were listed as one-teacher schools. Consolidation and provisions for transportation have tended to reduce the number of small schools and to provide for the development of larger school units. In 1921 the attendance in one-teacher schools was 9 per cent of the total; in 1925 it was 5.7 per cent; and in 1930 it was 3.5 per cent. The decrease is in both total numbers and in relative proportion.

2. The relative enrollment by grades has shown a slight improvement during the last ten years. In 1921 the enrollment in the eighth grade was 21 per cent of that in the first; that in the second grade was 51 per cent of that in the first. For 1930 the corresponding percentages were 26 and 54. In the high school there has been a remarkable increase. This is most clearly represented by figures showing the percentage that high school attendance is of the total attendance in public schools. In 1910 this was 4.9 per cent; in 1915, 7.1 per cent; in 1920, 10.4 per cent; in 1925, 14.5 per cent; in 1930, 15.9 per cent. The challenge to Arizona educators is to improve conditions in the lower grades.

3. The situation with respect to enrollment at various ages has changed very little during the past ten years. Age-grade conditions have been improved slightly during the last five years, the percentage of normal-age students increasing from 53 to 60 and the percentage of over-age students decreasing from 42 to 34.

4. Data on transiency of pupils for a number of years are not readily available. The findings of isolated studies indicate that migration of parents and children has proceeded without much change for several years. It is likely that the condition has been aggravated somewhat during recent years. Attendance in the elementary schools was 63.1 per cent of the enrollment in 1921, 76.1 per cent in 1925, and 72.2 per cent in 1930.

5. There have been only slight changes in the racial composition of the total population and of the school population of Arizona during the last ten years.

Summary of Implications.

1. The construction and adaptation of an elementary school course of study in Arizona is not merely a problem of caring for one-teacher schools. The number of such schools is small and they possess a small proportion of the total school population. Moreover, the relative importance of the small school unit in Arizona seems to be on the decline.

2. Attention should be directed to the possibility of differentiated work in the upper grades of various school units of Arizona.

3. The large number of pupils in the lower grades emphasizes the extreme need of careful planning and effective teaching in those grades. The elementary school—in fact any school unit—should be considered as a unit in itself and consequently should plan its work **so that the maximum good may be secured from each unit** of work. The **preparatory function** of any school unit should be emphasized **much less** than in the past.

4. Age-grade conditions are not satisfactory. Every teacher should aid in the improvement of this situation.

5. Migration of pupils from one school to another emphasizes the necessity of providing for definite achievements in each unit of work throughout the various grades. Some uniformity in the curriculum requirements is highly desirable.

6. The mixture of nationalities, cultures, and languages in Arizona emphasizes the need for effective training in the language arts—reading, composition, and language activities in general. This is especially true in the lower grades.

7. Each teacher and each school should consider carefully the conditions of the school community. Enrollment by ages and grades, attendance, transiency, and the racial and social composition of the school population should be matters of individual study if an effective curriculum is to become a reality. Ultimately, instruction must be planned not merely for each school but for each pupil within that school.

THE AIMS OF FORMAL EDUCATION

In teaching as in other types of work, it is well to have clearly formulated aims or purposes. Such aims serve to determine the end toward which effort is directed and give a basis for measuring progress toward that end.

The prime purpose of formal education is to further effective adjustment to an ever changing environment. **Social welfare** and the **fullest development** of **each individual** are two mutually interdependent aims which public schools should consciously strive to achieve.

"The preservation and promotion of the public welfare is the all inclusive purpose of American education. The first specific thing which formal education must do is to pass on from each generation to the next whatever worthy benefits the civilization of the past has brought to the public welfare. The second is that through the methods and processes by which this heritage of the past is transmitted from generation to generation, formal education must do its best to secure in the individual the development of all those latent and wholesome powers that are essential to the master ability of using that which civilization has transmitted for the promotion of the public welfare." (2)

This statement of aims implies that the needs and interests of the present and of the future must both be considered. Selection of the most valuable experiences of the past and teaching them to pupils in such manner that each will develop in methods of learning and in types of control are especial obligations of all teachers in the schools of today. Growth in the present and preparation for the future as adults must both be considered, difficult as that task may be.

One means toward the fulfillment of the aims of social welfare and the development of each individual to the limit of his capacity is to be found in the selection and the complete or partial attainment of **proper pupil outcomes.** Knowledge alone cannot be the sole objective to be planned for. Facts selected on the basis of their relation to individual and social needs and well learned have an important place. Knowledge, however, is not valuable for its own sake but is to be judged on the basis of its contribution to the major aims of education. Habits, skills, and abilities which the schools aid children to secure must put the emphasis on the development of the individual and the social group. Methods of thinking must be encouraged and used. Emotional elements such as interests, ideals, attitudes, and appreciations must be planned for and skillfully directed. This is especially true in a dynamic society such as ours where new conditions and new problems continuously arise. In brief, less emphasis than in the past should be placed on formal **knowledge, habits,** and **skills,** and relatively greater weight should be given to the development of **insight, understanding, attitudes, ideals, interests, appreciations, judgment,** and **effective methods of thinking.**

It should be borne in mind that culture as an aim of education has not been neglected in the purposes stated above. The utilization of the benefits of past civilizations in the development

(2) Seventh Yearbook. Department of Superintendence N. E. A. 1929, pages 79-86.

of latent and wholesome powers of the individual imply a justifiable ideal of personal growth. Environment consists of those elements of one's surroundings to which one responds or reacts. Culture is determined by the number and variety of desirable reactions which an individual possesses. Anything is cultural which enlarges one's environment. This includes the occurrences of the past, the present, and the future; it considers both the immediate and the remote surroundings. There is no basic conflict between so-called "practical" and "cultural" subjects. Rather, **any subject or set of experiences is cultural to the extent that it contributes usable knowledge, fosters the attitude of tolerance and open-mindedness, increases the number and variety of permanently valuable interests and appreciations, and stimulates and encourages thinking.**

"Culture consists of the all-round development of those capacities and ideals which make for human progress; it includes social service, many-sidedness, democracy, physical well-being, development of the spiritual life, aesthetic appreciation, well-mannered expression, insight, force, and idealism; it is altruistic, dynamic, and creative." (3)

The same subject varies in its cultural results with different people; no one field has a monopoly of the possibilities. Schools must not only carefully select the materials to be taught but must also present them in such form that knowledge, habits, methods, and interests accrue which will eventuate in effective and continued personal activity and growth.

THE AIMS OF THE ELEMENTARY SCHOOL

The elementary school is the first formal educational institution the child attends. For three-fourths of the children in Arizona it is the only school attended. The elementary school, then, should contribute as fully and as effectively as possible to the purpose of education in general. The aims of the elementary school are determined from a detailed analysis of the general aims of education—social welfare and individual development. There are five specific aims which the elementary school should strive to achieve with its pupils.

These aims are not mutually exclusive. Rather, the development of effectiveness in one objective can and should contribute to greater efficiency in one or more of the others.

A. Skill in the Tool Subjects.

The elementary school should develop in its students the ability to read, write, spell, and speak correctly the English language, and to know and use intelligently the elementary processes of arithmetic.

The achievement of this aim of the elementary school is basic for much of the other work this school performs. There should be a high degree of efficiency in this objective or the possibilities of achieving the other aims are much reduced.

B. Health.

The elementary school should teach its pupils to know, observe, and appreciate the laws of physical and mental health.

(3) The St. Louis Program of Curriculum—Revision—Twenty-sixth Yearbook National Society for the Study of Education, 1926, Part I, page 243. Quoted by permission of the Society.

Not only should a knowledge of the essentials of hygiene be developed, but also effective health habits and an attitude which stresses good health as both an individual and a social responsibility. Some attention should be given to the importance of normal wholesome mental attitudes in relation to health and means provided for developing them.

C. **Citizenship.**

The elementary school should aid pupils to understand and practice desirable civic and social relationships. "It should develop in each child the ability to know and appreciate the geography and history of his own community, state, nation, and world at large; to understand and sense his share in the social, civic, and industrial order of such a democracy as ours, and to meet to the full the obligations which such knowledge should engender, to the end that justice, sympathy, and loyalty may characterize his personal and community life." (4)

The development of citizenship should provide for practice and the development of desirable traits and attitudes at the same time that vital knowledge concerning history, civics, and government is being transmitted. All the school activities—play, social activities, class work, extra curricular activities, and methods of discipline—should contribute to this aim. **Character education is involved here as a result and need not be listed as a separate objective.**

D. **Education for Proper Use of Leisure.**

The elementary school should aid each pupil to discover and develop his own desirable individual aptitudes and interests. It should advance the child in his ability to share intelligently and appreciatively in the fine arts through the pursuit of music, art, and literature. It should develop in the pupil an understanding and appreciation of the world of nature.

The development of the interests and aptitudes of an individual is not entirely a problem of utilization of leisure. Some of these interests may be definitely related to the work that he performs. In every field of study the attempt should be made to stimulate and develop abiding interests. Subject matter is not an end in itself but a **means to an end**—the development of human beings. Careful study of each pupil and skillful teaching according to the best methods are necessary. **Production is not an absolute pre-requisite for enjoyment, nor should standardization in taste be considered essential.**

E. **Pre-Vocational and Vocational Training.**

The elementary school should teach each child to appreciate and desire worthwhile activities, and develop some degree of effectiveness in their use. It should aid the child to share intelligently and appreciatively in the useful arts through the pursuit of manual training and the household arts as they are related to the three great universal needs of food, clothing, and shelter. (5) It should provide guidance seeking to accomplish

(4) Seventh Yearbook-Department of Superintendence, pages 79-86, Adapted.

(5) Seventh Yearbook—Department of Superintendence, pages 79-86, Adapted.

these things with each child: (a) discovery of aptitudes; (b) stimulation of interests or "urges" in the direction of these aptitudes; and (c) the furnishing of insights into vocational possibilities.

Each individual is a member of a home. He will be concerned with earning a living. The elementary school in Arizona must give some knowledge and guidance in regard to vocations, foster respect for various kinds of work, aid the student to develop personal traits necessary for success in vocational work, and give some information that all will need in regard to homes, insurance, investments, and other similar items.

This aim for elementary schools may be open to question. However, only twenty-five per cent of the pupils of Arizona schools attend high school and only eight per cent secure high school diplomas. For seventy-five per cent of these children the elementary school is the "finishing school"; for seventeen to twenty per cent more, the high school is the last formal educational opportunity. Some introduction to practical and vocational activities must come comparatively early. One possibility is to change our present social and economic order; a second is to adapt our educational procedure to meet present conditions. The second type of procedure appears to be the most practicable one at the present time.

GUIDING PRINCIPLES OF CURRICULUM CONSTRUCTION AND THEIR APPLICATION

The materials of the curriculum should be selected and used in accordance with defensible basic principles of education. The responsibility for considering and applying these principles rests on each individual teacher.

1. Education is an investment by the state to preserve and promote its own best interests. (6) In an investment one of the fundamental ideas is definite return for the money expended. In selecting any material or activity for inclusion in the school program the question of its value to the individual and to society must be considered. Custom and tradition are not sound bases for the selection of materials for use in teaching.

2. Subject-matter must be selected and used which makes the greatest contribution toward the fulfillment of the aims of education. Not only must content of proven social value be presented but the method of teaching should be such as will insure the best use of this material.

3. "The first duty of the school is to teach pupils to do better the **desirable** things they will do anyway." (Briggs) Clear analysis of desirable practices of present society together with possible improvements must be provided for.

4. Subject matter should be **worth while for whatever period of time it is studied.** Due to the fact that pupils in Arizona may move to other schools or even drop out altogether it is essential that valuable material **come early** in the school course. The organization should be such that each unit represents a worth while degree of achievement **recognized** by both **teacher** and **pupils.**

5. Because of the interdependence of people in the state, the nation, and the world at large, social education should be especially stressed. In case of conflict between social and individual needs those of society should be considered as of major importance.

6. Transfer to life situations must be provided by definite means. Such transfer is likely to occur if the materials, the methods, and the ideals which permeate the school and its activities closely approximate those the pupil will encounter outside of school now and after school life is over. Consequently, the following suggestions should be put into effect by the teacher.

a. Select materials which objective studies and observation indicate will probably be of frequent use value to pupils. More emphasis than in the past must be placed on oral composition, current history and current literature, local natural science, community relationships in civics, and problems of actual present use in mathematics.

b. Develop and use such methods of learning with pupils as will most probably carry over into out-of-school situations. Note the method of study that the child uses and attempt to develop the most effective procedure. In the securing of knowledge see that the pupil reads effectively,

(6) See extended discussion in Briggs, T. H. **The Great Investment**—Harvard University Press 1930.

organizes carefully, and summarizes the essential information. In the formation of skills—as in writing, spelling, reading, and arithmetical computation—help to promote efficiency on the part of each student. In the development of thinking, help the pupil to isolate and define the problem at issue, to secure and evaluate data and to suggest and pass judgment on the solutions. The scientific attitude (conviction of cause and effect relationship, sensitive curiosity concerning happenings, tolerance for another's viewpoint, acceptance of conclusions as tentative, and patient conscientious search for data) may come as a result of definite teaching as will also the application and extension of general principles.

c. Encourage and use the same ideals and traits as apply to out-of-school situations. Punctuality, accuracy, speed, neatness, initiative, and personal responsibility as worthwhile ideals determining success should be stressed and used in school if we expect pupils to use them throughout life.

d. Help pupils to recognize the identity or similarity of school experiences and those from other sources. The selection of identical materials, of similar methods, and of like ideals is important but many fail to profit because the relationship to life situations is not clear. Identities and similarities must be indicated by varied and intimate contact with real materials and the **implications** and **applications** of the learning of the child pointed out. The study of ordinances, charters, and other documents in civics, visits to farms and industrial establishments in geography and natural science, the use of actual forms—deeds, mortgages, policies, and contracts—in arithmetic, contact with lawyers, doctors, and members from other vocations, and proper use of illustrative materials in all courses will do much to lessen artificiality and to promote a broader and richer use of school learning. The attitudes, insights, interests, and appreciations thus developed are very vital in the plan of education. The need for stress on this possibility of transfer is greatest with the least capable pupils.

7. Co-ordination of in-school and out-of-school activities must be provided for. By the time a child completes the fourth grade he has spent one-twelfth of his waking time in school and eleven-twelfths outside of school; at the completion of the sixth grade the proportion of his time in school is one-tenth; and at the completion of the eighth grade the proportion of in-school time is one-ninth and that out of school is eight-ninths. Recognition of a pupil's experiences acquired from other than school sources and effective cooperation with those sources must be provided. The home, the church, Boy Scouts, summer camps, vacation schools, and similar sources of educative influences should be considered in the study of the child, his background, and his needs.

8. Adaptation should be made to individual differences of all kinds. The child, his physical and mental makeup, his past experiences in all lines, his desires, and his needs should be carefully studied and thoroughly understood. So also should the community because of its use as a source of teaching materials and the things the school may do to meet especial needs. Mate-

rials and methods must be arranged to take care of each pupil in the environment in which we find him.

9. Self-activity is essential for learning and should be encouraged. In planning lessons the aims should always be stated in terms of pupil reactions. In arithmetic for example, the aim is "to develop speed and accuracy in adding numbers" rather than to "teach addition"; in spelling, "to develop a method of learning the spelling of new words" rather than "to teach spelling." The method of procedure and the measurement of results should be judged by the degree to which they contribute to desirable and continued activity on the part of pupils.

10. Childhood and adulthood is one continuous process and, consequently, present activities are important as denoting the possibilities of growth. Provision must be made for the acquisition of knowledge but the methods used in acquiring this and further knowledge, the habits, skills, interests, and appreciations which are being developed at the same time should be those which are likely to lead to continued activity. Education is a process rather than merely a product.

GENERAL PLAN OF COURSES

The course in each subject-matter field follows the same general plan of arrangement. It will be well for the teacher to read through the course for the entire subject-matter field to get a unified view of the whole, whether she is teaching one grade or several. While there is some variation in arrangement each course has the content indicated below.

Introductory Statement.

This consists of several paragraphs indicating the justification for the subject and outlining the major trends.

Aims.

The major aims of the subject are outlined. Specific aims or objectives are given for each year or (in some cases) for lesser units of work. The teacher should outline more specific and more detailed objectives for lesser divisions or units of work.

Content.

The content for each year of work is next outlined. Division of this content into units of meaningful experience is recommended and is planned for in several of the courses. It had been hoped to outline specifically the minimal, optional, and supplementary material for groups of pupils of varying ability in the schools of Arizona. The opportunities for controlled experimentation and the securing of objective data have been limited so this very desirable feature has been omitted. Under "standards of attainment" the listed achievement represents the desirable minimum.

Methods.

Suggested methods for achieving the best results with the course materials are presented. These are based on the best scientific studies available. In the case of certain skills it is recommended that the methods suggested be used rather consistently. Poor spelling and hand-writing, for example, are often the result of improper methods of teaching or of a variety of methods, or both. With migrant pupils this difficulty in developing effective skills because of different plans of procedure in various schools is especially marked. However, it should be noted that these proposed methods are outlined with the purpose of helping rather than limiting or cramping teachers in their work.

Outcomes and Standards of Attainment.

The outcomes planned for and the standards of attainment properly expected in each unit or in each year of content will usually be found at the close of each unit of content. These standards of attainment represent the judgment of the members of subject-matter committees as developed through teaching experience. It may be necessary to revise them after trial in Arizona schools. It should be noted that they represent definite gradations of achievement from grade to grade.

Measurement.

Methods of measuring the results of teaching are suggested at the close of each year of work,—in some cases, oftener. Standardized measurements are listed as to types, publisher, and cost.

Bibliography.
A bibliography of books and periodicals for teachers and pupils is given at the close of each course. In the bibliography for teachers especial effort has been made to include material on both content and method.

Equipment and Supplies.
Where special equipment and supplies are necessary for effective teaching of any course a list will usually be found immediately after the bibliography.

THE TEACHER'S PART IN ADAPTING AND USING THE COURSES

The teacher is primarily responsible for securing results with this or any other course of study. The result sought for is the maximum of desirable pupil reaction and learning. Not only should there be **many reactions,** but these should be **purposeful** on the part of pupils. The extreme importance of pupil motivation may be emphasized by several quotations.

Several courses have recently been produced on the basis of "activities." (7) "An activity program is an attempt to vitalize teaching. It attempts to encourage and develop thinking in everyday experiences on the part of the pupil; it stresses pupil purpose; it emphasizes pupil doing and making—participation instead of passive receiving. An activity is worth while to the extent that it deals with experiences pupils come in contact with outside the schoolroom, to the degree that it modifies behavior, satisfies present needs, expands interests of children, and offers opportunities for the expression of individual needs and of differences in ability." (8)

The concept of the project in teaching emphasizes purposeful activity on the part of pupils. Four types of projects are apparent: (a) where the task is to make something—a construction project; (b) where the purpose is to solve a problem or clear up some intellectual difficulty, as a problem in arithmetic, geography or science; (c) where there is a whole-hearted attempt to develop a high degree of skill as in handwriting, the fundamental operations in arithmetic, etc.; (d) where there is a deep and sincere desire on the part of a student to develop appreciation of a selection of music or literature or art. (9)

Morrison emphasizes the **unit** as a division of significant pupil experience and stresses the importance of developing and utilizing proper pupil motivation. Without a consideration of good organization and motivation initiative on the part of pupils is not developed, mere "lesson-learning" is a result, and learning of a desirable order does not occur. (10) The possibility of arranging content in such form that some important skill, some related bodies of information, or some especial generalization may be developed and emphasized should be put into definite practice rather than using unrelated and largely unplanned day-by-day procedure in teaching.

(7) E. H. Reeder—Shall We Discard The Traditional Subjects in the Upper Elementary School, Teachers College Record, 30:310-321.
(8) Hawaii—Activity Program for Primary Grades—pages 2-5, Adapted.
(9) W. H. Kilpatrick—The Project Method, Teachers College Record, 19: 319-335.
(10) Morrison, H. C.—The Practice of Teaching In the Secondary School University of Chicago Press, 1926, page 37.

The teacher's task in teaching is concerned with the clear formulation of objectives, the selection of content and activities which are most likely to lead to the objectives set up, the direction of pupils in their learning activities, and the determination of progress in the direction of the goal which has been set.

In formulating aims a teacher should bear in mind the type of learning and controls students should secure from a particular unit or activity. Is the plan to accumulate information, to develop certain habits or skills, or to encourage and build certain insights, generalizations, attitudes, interests, ideals, and appreciations? Or is the purpose to develop several of these desirable outcomes? The more specifically these aims are formulated and planned beforehand the greater the possibility of effective results.

The content and activities to be employed are determined by the objectives. The more directly content is related to the desired objective the greater are the possibilities of attaining the end planned for. If the aim is to develop skill in oral composition definite material in oral expression must be provided; if the aim is to give information on the present situation in public finance current history materials must be planned for. In method the end in view must determine procedure. The techniques of teaching for the development of skill in handwriting or in addition, for securing effective thinking, for memorizing essential information, or for developing appreciation differ greatly and much thought should be devoted to planning the method best calculated to secure results. (11)

The assignment is a very important step in the mutually-inclusive process of teaching and learning. There is no single set time which is best for making the assignment but it should provide for enough time for students to understand what they are to do and, preferably, some practice in developing the new skill or activity which is desired. It would be well for an assignment in arithmetic to provide some practice in the new type of problem; if the period immediately following the recitation might be used for directed study such arrangement would be helpful. The same suggestion would apply to work in spelling, composition, science, and other subjects. The assignment must be definite; it must indicate the achievements the pupil should strive for; it should outline means for securing these achievements; and it should properly initiate correct practice. Mere listings of pages do not fulfill the purposes of an assignment.

Supervision and direction of the learning of pupils is essential. It is evident that knowledge is not the only outcome planned for. It is not enough that correct answers be handed in in arithmetic classes, good copies in handwriting, good compositions in English, and correct lists of words in spelling. The method a child uses in adding, his technique in writing, his ability to organize material for oral and written themes, and his plan of attacking new words are examples of essential skills which the school has a responsibility to develop. The teacher must actively direct and assist in the process of learning instead of being merely a hearer of recitations.

(11) See Morrison, op. cit. pages 89-99. Every teacher would do well to familiarize herself with the basic ideas of this book.

Determination of progress toward objectives and modification and improvement of procedure in the light of the findings is an important though oft-neglected element of the teacher's task. Objective evidence should be employed wherever it is possible to do so.

The securing of objective evidence is not always possible. It is comparatively simple to discover whether or not a pupil has assimilated certain essential information. His efficiency in various skills may have to be checked by careful observation not only of the finished product but also of the actions contributing to that performance. Handwriting, the method of addition, the plan of problem-solving, the technique of using the dictionary or other books of reference, and the procedure in preparing a letter are skills which should be observed and judged in the making. Attitudes, interests, tastes, and personal traits must be judged by means which are not thoroughly objective but by more or less indirect evidence. Some examples of such non-objective means of measurement appear in various of the courses.

In measuring knowledge and the simpler habits and skills standardized and non-standardized examinations may be employed, and each should be used judiciously. It should be borne in mind that examinations have certain definite functions and careful planning is necessary if these functions are to be performed.

The first and most defensible function of examinations is **teaching.** In preparation for these there is announcement beforehand, teacher aid in organization of materials and preparation, emphasis on important ideas, and suggestions concerning effective methods of review. The papers are marked, returned to the class and discussed at the next class meeting. Re-teaching of points inadequately assimilated is provided, and a later re-test for some pupils may be advisable.

The second function is **diagnosis.** An examination should discover to the teacher her weaknesses in teaching. It should indicate the shortages of students in various divisions of the subject. It should, if possible, reveal the causes of difficulties. It is not enough to know that a student has wrong conceptions or inadequate knowledge but one should know why these defects occurred. True-false questions read by a teacher and where the student puts down "yes" or "no" for various questions are not effective agencies toward fulfilling this objective. True-false questions where explanations are required, questions dealing with cause and effect, and certain types of discussion questions are more effective. If objective examinations are used they should be mimeographed or hektographed if diagnosis is to be effectively done. Both teacher and pupil must have definite material as a basis for analysis and consequent remedial procedure.

Motivation of a positive type is a third function of examinations. If a child can write well he is delighted to display his skill. He is also interested in surpassing his past record. Holding examinations before children as a threat of punishment, asking trivial and unfair questions, and unannounced quizzes are examples of negative motivation and will tend to develop definite fear—the so-called "examination complex." Frequent examinations based on definite units, announcement of the essential achievements to be measured, and a proper attitude on the part

of the teacher will result in making of examinations a pleasurable experience definitely desired and requested by pupils. This situation now exists in some Arizona schools; it should be universal.

The fourth function of examinations is **marking,** or measurement. Ideally, it should determine whether or not the child has reached the minimum standards of attainment required of his grade. This should represent satisfactory mastery and is the passing mark. Achievements above this should represent additional attainments and a higher mark. The most satisfactory means for marking is the objective examination; the most valid of the objective examinations are probably the standardized tests and scales. Full and complete discussion of tests, their preparation, interpretation, and use is found in various books indicated below. (12)

All of these objectives are worth while and definite efforts should be made to attain them. Much more attention, however, should be devoted to the preparation and use of examinations with teaching and diagnosis as specific functions than has been the case in the past.

TIME ALLOTMENTS

It has been the desire of the curriculum committees to provide for courses which might readily be adapted to prevailing practices and conditions of Arizona schools. Accordingly, a general survey was made of the programs of the schools of this state. It was found that the time schedules vary in many schools, and often in the same system. These variations occur because of the amount of time given some particular elementary school subject in a certain locality.

Scientific investigation has indicated that approximately two-thirds of the school time should be allotted to the so-called fundamental subjects; the remaining one-third of time should be apportioned among the special subjects. It is on practically this basis that the accompanying schedules of weekly time allotments, in minutes per week, have been formulated. It is hoped that these schedules may serve as a guide to principals and teachers in the construction of a well-balanced program.

(12) C. Russell—Classroom Tests—Ginn & Company, 1928.
G. M. Ruch—The Objective or New Type Examination, Scott, Foresman & Co., 1929.
H. L. Smith & W. W. Wright—Tests and Measurements, Silver Burdett & Co., 1928.
H. A. Greene & A. N. Jorgensen—The Use and Interpretation of Educational Tests, Longmans, Green & Company, 1929.
E. W. Tiegs—Tests and Measurements for Teachers, Houghton Mifflin Co., 1931.
L. J. Brueckner & E. O. Melby—Diagnostic and Remedial Teaching, Houghton Mifflin Co., 1932.

ONE TO FOUR TEACHER SCHOOLS
MINIMUM TIME ALLOTMENT IN MINUTES PER WEEK

	1B Grade	1A Grade	2 Grade	3 Grade	4 Grade	5 Grade	6 Grade	7 Grade	8B Grade	8A Grade
Reading and Literature	300	300	300	300	250	200	200	200	200	200
Language and Composition	100	100	100	150	150	150	150	200	200	200
Spelling		75	75	75	100	100	100	75	75	75
Word Drill	50	50	50	50						
Penmanship	75	75	75	75	75	75	75	75		
Arithmetic		50	100	200	200	200	200	200	200	200
Elementary Science	75	75	75	75	75	75	75	150	150	150
History					100	150	150	200	200	
Civics										200
Geography					100	150	150	200		
Physical Education	100	100	100	150	150	150	150	150	150	150
Inspection										
Health Instruction										
Relief Period										
Music	75	75	75	75	75	75	75	75	75	75
Practical Arts										
Fine Arts	100	100	100	100	100	100	100	100	100	100
Recess				75	75	75	75	75	75	75
Unassigned Time	475	350	300	475	350	300	300	100	375	375
Close at	2:30	2:30	2:30	4:00	4:00	4:00	4:00	4:00	4:00	4:00
Total Minutes Per Week	1350	1350	1350	1800	1800	1800	1800	1800	1800	1800

Penmanship, so far as a definite assigned subject, should be completed by the end of the sixth grade. One class might be carried over into the seventh or eighth grade for remedial work.

Elementary Science embraces history, geography, nature study, physiology and hygiene, and citizenship in the first three grades. After this history and geography find a definite place in the curriculum. The remaining subjects continue under the original head.

This schedule is made with the intention of completing geography in the seventh grade and permitting more finding courses in the eighth grade.

No special time has been set aside for practical arts or agriculture. From the unassigned time provision can be made for either or both of these subjects.

LARGE SCHOOL SYSTEMS

MINIMUM TIME ALLOTMENT IN MINUTES PER WEEK

	Grade 1B	Grade 1A	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8B	Grade 8A
Reading and Literature	450	450	450	400	300	225	225	200	200	200
Language and Composition	100	100	100	125	150	150	150	200	200	200
Spelling		75	75	100	100	100	100	80	80	80
Word Drill	50	50	50	50						
Penmanship	75	75	75	75	75	75	75	80		
Arithmetic		50	100	300	200	225	225	200	200	200
Elementary Science	100	100	100	100	100	100	100	150	150	150
History, Civics					100	150	150	200	200	
Civics										200
Geography					100	150	150	200		
Physical Education	100	100	100	225	225	225	225	120	120	120
Inspection										
Health Instruction										
Relief Period										
Music	100	100	100	100	100	100	100	80	80	80
Practical Arts						60	60	160	160	160
Fine Arts	100	100	100	100	90	90	90	80	80	80
Recess	75	75	75							
Unassigned Time	200	75	25	225	260	150	150	50	330	330
Close at	2:30	2:30	2:30	4:00	4:00	4:00	4:00	4:00	4:00	4:00
Total Minutes Per Week	1350	1350	1350	1800	1800	1800	1800	1800	1800	1800

Penmanship, so far as a definite assigned subject, should be completed by the end of the sixth grade. One class might be carried over into the seventh or eighth grade for remedial work.

Elementary Science embraces history, geography, nature study, physiology and hygiene, and citizenship in the first three grades. After this history and geography find a definite place in the curriculum. The remaining subjects continue under the original head.

The schedule is made with the intention of completing geography in the seventh grade and permitting more finding courses in the eighth grade.

SUGGESTED WEEKLY TEACHING PROGRAM FOR ONE-TEACHER SCHOOLS

This suggested program has been submitted with the distinct purpose of aiding teachers who are young in the field of experience. Note that there are two main divisions, one dealing with recitation and directions for one group of pupils and the other with study and directions for the others. For example, the time from 9:00 to 9:10 is, for all grades, allocated to morning inspection, flag salute and holiday discussion. The time from 9:10 to 9:25 is given over to classwork in reading in grades one and two, while grades three to eight are devoting the time to the study of reading. Subsequent periods of time follow a similar plan of arrangement.

Subjects have been grouped with the idea of closer correlation and the possibility of reducing the number of classes. Should this not be deemed advisable proceed as the program is outlined, using it to the best possible advantage. Should there be insight to a better program with more experienced teachers, well and good. The program outlined here is suggestive rather than mandatory.

		Recitation and Directions		Study and Directions		
Begin	Time	All Grades	I-II	III-IV	V-VI	VII-VIII
9:00	10	Morning Inspection, Flag Salute, Holiday Discussion				
9:10	15	Reading-Class and Directed Study (1-2)		Reading	Reading	Reading
9:25	20	Reading-Classwork and Directed Study (3-8)	Reading Seatwork			
9:45	15	Spelling Test-Study Plan Correlated with writing (3-8)	Library Reading			
10:00	10	Language 3 days; Writing 2 Days; Classwork and Directed Study (1-2)		Language	Language	Language
10:10	20	Language—Class work and Directed Study (3-8)	Language			
10:30	25	**Physical Education—Health Instruction—Recess**				
10:55	15	Reading and Phonics 3 days Arith. 2 days Classwork and Directed Study (1-)		Arithmetic	Arithmetic	Arithmetic
11:10	50	Arithmetic Classwork and Directed Study (3-8)	Seatwork in Arith and Reading			
12:00	20	**Supervised Lunch Period**				

12:20	40	**Supervised Play for All**				
1:00	15	Reading (Social Studies and Exercises) Classwork and Directed Study .		Elementary Science Geography	Geography	Geog. (7) History (8)
1:15	30	History 4 days; Citizenship 1 day; Classwork and Directed Study (4-8)	Seatwork Reading or Soc. Stds.			
1:45	15	El. Science—Classwork and Directed Study (1-4)			El. Sci. Lib.	History (7) Lib. (8)
2:00	30	Geography-Classwork and Directed Study (4-7)	Seatwork Art-Num.			
2:30	15	**Supervised Play**				
2:45	15	Music for all		Music for all		
3:00	10	Reading-Classwork and Directed Study (1-2)		Lib.	History	Geography (7) Science (8)
3:10	20	El. Sci. 4 da (5-7) Agri. or Civics 2 da (8); Pen. Friday (3-8)	Language Health	History		
3:30	30	Fine and Industrial Arts 4 da (1-6) Man. Tr. and Home Making 4 days (7-8) Club work, Fri. All Grades.				
4:00		**Dismissal**				

This program shows study and class periods for a school of eight grades. If all the grades be not represented, more time may be given each subject in the several grades.

Classwork and directed study means that each grade does its own work and receives directions, studies and reports several times during the period. While one grade reports, others carry out directions and study. On this program related subjects follow as closely as possible so that the teacher may correlate as far as possible.

Use relief periods as often as needed to prevent restlessness.

PART II.

THE AMERICAN FLAG

In common with many other states Arizona makes provision for the display of the flag of the United States and for patriotic instruction. "The school authorities of every public school shall purchase a United States flag, flagstaff, and appurtenances, and display such flag upon or near the public school building during school hours, and at such other times as they direct. The state superintendent of public instruction shall prepare for use in the public schools a program providing for a salute to the flag and other patriotic exercises, as meet the requirements of the different grades. He shall also make special provisions for the observance in the public schools of Lincoln's birthday, Washington's birthday, Memorial day, and Flag day, and other legal holidays of like character." (Par. 1066, School Laws 1931—Pars. 117-18-19 Ch. 77, L. 12, 2843-4-5, R. S. '13 in part, cons. & rev.)

There have been included in each publication of the School Laws of Arizona, Territorial and State, rules adopted by the State Board of Education, or Territorial Board, suitable for teaching pupils in the schools the proper respect for and observance of our flag. These rules have been amended from time to time, and at a meeting of the State Board of Education, in December, 1924, C. O. Case, State Superintendent of Public Instruction, was commissioned to draw up a new set of rules for adoption by the State Board of Education. In January of 1925, Dr. Case recommended for submission to the State Board of Education the rules and code as adopted by the National Flag Conference, Washington, D. C., June 14-15, 1923, revised and endorsed by the Second National Flag Conference, Washington, D. C., May 15, 1924, and endorsed by the state department of the American Legion. While the code and rules, as they stand, can not be taught in their entirety, much of the information is of such value that it should be readily available to all. Hence, the flag code is included here in its entirety.

FLAG CODE

As adopted by the National Flag Conference, Washington, D. C., June 14th and 15th, 1923, and revised and endorsed by the Second National Flag Conference, Washington, D. C., May 15th, 1924.

Description of the Flag.—The flag of the United States of America has 13 horizontal stripes—7 red and 6 white—the red and white stripes alternating, and a union which consists of white stars of five points on a blue field placed in the upper quarter next to the staff and extending to the lower edge of the fourth red stripe from the top. The number of stars is the same as the number of states in the Union. The canton or union now contains 48 stars arranged in six horizontal and eight vertical rows, each star with one point upward. On the admission of a State into the Union a star will be added to the union of the flag, and such addition will take effect on the 4th day of July next succeeding such admission. The proportions of the Flag as prescribed by the Executive Order of President Taft, October 29, 1912, are as follows:

Hoist (width) of flag	1.
Fly (length) of flag	1.9
Hoist (width) of union	7/13
Fly (length) of union	0.76
Width of each stripe	1/13
Diameter of star	.0616

Code of the Flag — How to Display the Flag of the United States.—There are certain fundamental rules of heraldy which, if understood generally, would indicate the proper method of displaying the Flag of the United States of America. The matter becomes a very simple one if it is kept in mind that the Flag represents the living country and is itself considered as a living thing. The union of the Flag is the honor point; the right arm is the sword arm and therefore the point of danger and hence the place of honor.

1. The Flag should be displayed only from sunrise to sunset, or between such hours as may be designated by proper authority. It should be hoisted briskly but should be lowered slowly and ceremoniously. The Flag should be displayed on all national and state holidays and on historic and special occasions. (However, being the emblem of our country, it ought to fly from every flagpole every day throughout the year, weather permitting.)

2. When carried in a procession with another flag or flags, the Flag of the United States of America should be either on the marching right, i.e., the Flag's own right, or when there is a line of other flags, the Flag of the United States of America may be in front of the center of that line.

3. When displayed with another flag against a wall from crossed staffs, the Flag of the United States of America should be on the right, the Flag's own right, and its staff should be in front of the staff of the other flag.

4. When a number of flags of states or cities or pennants of societies are grouped and displayed from staffs with the Flag of the United States of America, the latter should be at the center or at the highest point of the group.

5. When flags of states or cities or pennants of societies are flown on the same halyard with the Flag of the United States of America, the latter should always be at the peak. When flown from adjacent staffs the Flag of the United States of America should be hoisted first and lowered last. No such flag or pennant flown in the former position should be placed above, or in the latter position to the right of the Flag of the United States of America, i.e., to the observer's left.

6. When flags of two or more nations are displayed they should be flown from separate staffs of the same height and the flags should be of approximately equal size. International usage forbids the display of the flag of one nation above that of another nation in time of peace.

7. When the Flag is displayed from the staff projecting horizontally or at an angle from the window sill, balcony or front of building, the union of the Flag should go clear to the peak of the staff unless the Flag is at half-staff. (When the Flag is suspended over a sidewalk from a rope, extending from a house

to a pole at the edge of the sidewalk, the Flag should be hoisted out from the building towards the pole, union first.)

8. When the flag is displayed in a manner other than by being flown from a staff, it should be displayed flat, whether indoors or out. When displayed either horizontally or vertically against a wall, the union should be uppermost and to the Flag's own right, i.e., to the observer's left. When displayed in a window it should be displayed the same way, that is, with the union or blue field to the left of the observer in the street. When festoons, rosettes, or drapings are desired, bunting of blue, white and red should be used, but never the Flag.

9. When displayed over the middle of the street, the Flag should be suspended vertically with the union to the north in an east and west street or to the east in a north and south street.

10. When used on a speaker's platform, the Flag, if displayed flat, should be displayed above and behind the speaker. If flown from a staff it should be in the position of honor, at the speaker's right. It should never be used to cover the speaker's desk or to drape over the front of the platform.

11. When used in connection with the unveiling of a statue or monument, the Flag should form a distinctive feature during the ceremony, but the Flag itself should never be used as the covering for the statue.

12. When flown at half-staff, the Flag should be hoisted to the peak for an instant and then lowered to the half-staff position; but before lowering the Flag for the day it should be raised again to the peak. By half-staff is meant hauling down the Flag to one-half the distance between the top and the bottom of the staff. If local conditions require, divergence from this position is permissible. On Memorial day, May 30th, the Flag is displayed at half-staff from sunrise until noon and at full staff from noon until sunset; for the Nation lives and the Flag is the symbol of the living Nation.

13. Flags flown from fixed staffs are placed at half-staff to indicate mourning. When the Flag is displayed on a small staff, as when carried in a parade, mourning is indicated by attaching two streamers of black crepe to the spear head, allowing the streamers to fall naturally. Crepe is used on the Flag staff only by order of the President.

14. When used to cover a casket, the Flag should be placed so that the union is at the head and over the left shoulder. The Flag should not be lowered into the grave or allowed to touch the ground. The casket should be carried foot first.

15. When the Flag is displayed in the body of the church, it should be from a staff placed in the position of honor at the congregation's right as they face the clergyman. The service flag, the state flag, or other flag should be at the left of the congregation. If in the chancel or on the platform, the Flag of the United States of America should be placed on the clergyman's right as he faces the congregation and the other flags at his left.

16. When the Flag is in such a condition that it is no longer a fitting emblem for display, it should not be cast aside or used

in any way that might be viewed as disrespectful to the National colors, but should be destroyed as a whole privately, preferably by burning or by some other method in harmony with the reverence and respect we owe to the emblem representing our country.

Cautions—

1. Do not permit disrespect to be shown to the Flag of the United States of America.

2. Do not dip the Flag of the United States of America to any person or anything. The regimental color, State flag, organization or institutional flag will render this honor.

3. Do not display the Flag with the union down except as a signal of distress.

4. Do not place any other flag or pennant above, or if on the same level, to the right of the Flag of the United States of America.

5. Do not let the Flag touch the ground or the floor, or trail in the water.

6. Do not place any object or emblem of any kind on or above the Flag of the United States of America.

7. Do not use the Flag as drapery in any form whatsoever. Use bunting of blue, white and red.

8. Do not fasten the Flag in such manner as will permit it to be easily torn.

9. Do not drape the Flag over the hood, top, sides or back of a vehicle, or of a railroad train or boat. When the Flag is displayed on a motor car, the staff should be fixed firmly to the chassis, or clamped to the radiator cap.

10. Do not display the Flag on a float in a parade except from a staff.

11. Do not use the Flag as a covering for a ceiling.

12. Do not carry the Flag flat or horizontally, but always afloat and free.

13. Do not use the Flag as a portion of a costume or of an athletic uniform. Do not embroider it upon cushions or handkerchiefs nor print it on paper napkins or boxes.

14. Do not put lettering of any kind upon the Flag.

15. Do not use the Flag in any form of advertising nor fasten an advertising sign to a pole from which the Flag is flown.

16. Do not display, use or store the Flag in such a manner as will permit it to be easily soiled or damaged.

Additional Points to Bear in Mind in Paying Homage to the Flag

During the ceremony of hoisting or lowering the Flag or when the Flag is passing in a parade or in a review, all persons present should face the Flag, stand at attention and salute. Those present in uniform should render the right hand salute. When not in uniform, men should remove the headdress, with the right hand and hold it at the left shoulder, the hand being over the heart. Women should salute by placing the right hand over the heart. The salute to the Flag in the moving column is rendered at the moment the Flag passes.

Salute to National Anthem—When the National Anthem is played and the Flag is not displayed, all present should stand and face the music. Those in uniform should salute at the first note of the Anthem, retaining this position until the last note. All others should stand at attention, men removing the headdress. When the Flag is displayed, the regular "Salute to the Flag" should be given.

The "Star-Spangled Banner" is recommended for universal recognition as the National Anthem.

Pledge to the Flag—In pledging allegiance to the Flag of the United States of America, the approved practice in schools, which is suitable also for civilian adults is as follows:

Standing with the right hand over the heart, all repeat together the following pledge:

"I pledge allegiance to the Flag of the United States of America and to the Republic for which it stands, one Nation indivisible, with liberty and justice for all."

At the words "to the Flag," the right hand is extended, palm upward, toward the Flag, and this position is held until the end, when the hand, after the words, "Justice for all," drops to the side.

However, civilian adults will always show full respect to the Flag, when the pledge is being given, by merely standing at attention, men removing the headdress. Persons in uniform should render the right hand salute.

The Shield.—The shield of the United States of America has 13 vertical stripes, 7 white and 6 red, with a blue chief without stars.

Federal Flag Laws.—There is but one Federal statute which protects the Flag throughout the country from desecration. This law provides that a trademark cannot be registered which consists of or comprises, among other things, "the Flag, coat-of-arms, or other insignia of the United States or any simulation thereof." (33 Stat. L. P. Feb. 20, 1905.)

Congress has also enacted legislation providing certain penalties for the desecration, mutilation, or improper use of the Flag within the District of Columbia. (39 Stat. L. P. 900, Feb. 8, 1917.)

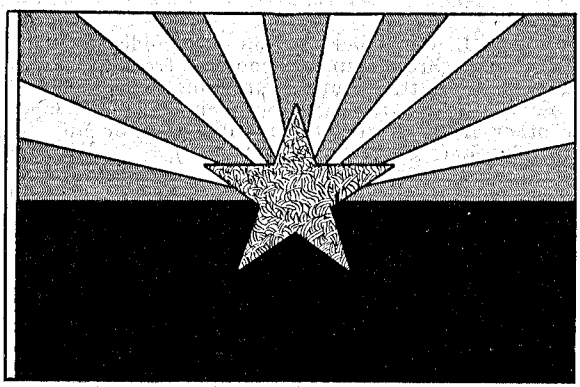
Proper Use of Bunting.—Bunting of blue, white and red should be used for covering a speaker's desk, draping over the front of a platform and for decoration in general. Bunting should be arranged with the blue above, the white in the middle and the red below.

The problem of developing an intelligent and effective citizenship in the present is not merely a matter of homage and respect for the flag. The matter of usable knowledge and traits for every member of our society is treated in detail in the bulletin (division) on Social Science. The members of the committee feel, however, that there are certain things that should be known and practiced by all, namely: the Pledge to the Flag, the Salute to The National Anthem, and proper procedure when the flag is passing in parade or in review.

THE STATE FLAG OF ARIZONA

Every citizen of Arizona, whether a child or an adult, should know and recognize the state flag. The plan of such flag as outlined in the state statutes is as follows:

"Blue and old gold shall be the colors of the state. The blue shall be of the same shade as that of the flag of the United States. The flag of the state shall be as follows: The lower half of the flag a blue field; the upper half divided into thirteen equal segments or rays, which shall start at the center, on the lower line and continue to the edges of the flag, colored alternately light yellow and red, consisting of six yellow and seven red rays; in the center of the flag, super-imposed, a copper colored five-pointed star, so placed that the upper point shall be one foot from the top of the flag and the lower points, one foot from the bottom of the flag; the red and blue shall be of the same shade as the colors in the flag of the United States; the flag to have a four-foot hoist and a six-foot fly, with a two-foot star; the same proportions to be observed for flags of other sizes. The flag represents the copper star of Arizona rising from a blue field in the face of a setting sun." (Chapter 2, Article I, Revised Statutes of Arizona, 1928, Par. 22.)



ARIZONA STATE SEAL

All persons who have dealings with the state or any of its departments have probably seen the state seal. It may, however, add to the understanding and appreciation regarding Arizona to note this brief outline of the detailed design of the seal.

"The seal of the state shall be of the following design: In the background shall be a range of mountains, with the sun rising behind the peaks thereof, and at the right side of the range of mountains there shall be a storage reservoir and a dam, below which in the middle distance are irrigated fields and orchards reaching into the foreground, at the right of which are cattle grazing. To the left in the middle distance on a mountain side is a quartz mill in front of which and in the foreground is a miner standing with pick and shovel. Above this device shall be the motto: 'Ditat Deus.' In a circular band surrounding the whole device shall be inscribed: 'Great Seal of the State of Arizona' with the year of admission of the State into the Union." (Article XXII, Section 20, Constitution of Arizona.)

Note—The motto "Ditat Deus" is translated "God Enriches."

THE STATE ANTHEM

In 1919 the Legislature designated a state anthem, "That there is hereby adopted one certain march song entitled 'Arizona' words by Margaret Rowe Clifford, copyright 1915, and music by Maurice Blumenthal, said words and music to be designated as 'Arizona's State Anthem'."—(Chapter 28, Session Laws, 1919, Sec. 1.)

ARIZONA

Come to this land of sunshine,
To this land where life is young.
Where the wide, wide world is waiting,
The songs that will now be sung.
Where the golden sun is flaming
Into warm, white, shining days,
And the sons of man are blazing
Their priceless right of way.

CHORUS

Sing the song that's in your hearts;
Sing of the great Southwest.
Thank God, for Arizona,
In splendid sunshine dressed.
For thy beauty and thy grandeur,
For thy regal robes so sheen.
We hail thee, Arizona—
Our Goddess and our Queen.

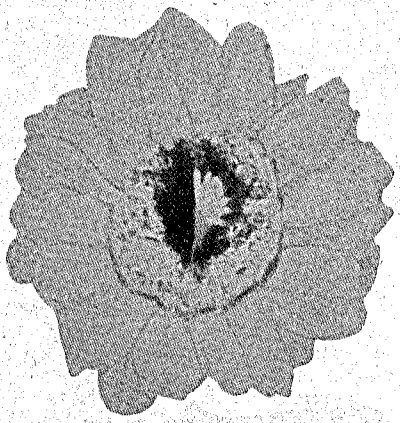
Come, stand beside the rivers
Within our valleys broad,
Stand here with heads uncovered,
In the presence of our God!
While all around about us,
The brave, unconquered band
As guardians and landmarks,
The giant mountains stand.

CHORUS

Not alone for gold and silver
Is Arizona great;
But with graves of heroes sleeping,
All the land is consecrate!
Oh, come and live beside us,
However far ye roam,
Come, help us build up temples
And name those temples "Home."

THE STATE FLOWER

From time to time there has been discussion and agitation regarding a state flower. Definite legislation was provided in 1931 when the legislature designated the blossom of the Sahuara as the state flower. "The pure white waxy flower of the Cereus Giganteus (Giant Cactus), or Sahuara, shall be the state flower of Arizona." (Laws 1931, Chap. 68, Sec. 2.)

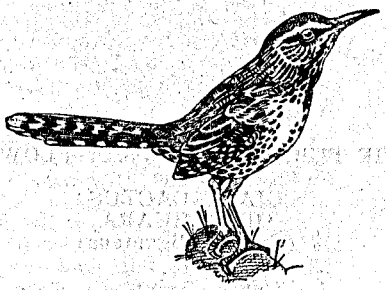


THE PURE WHITE WAXY FLOWER
of the
GIANT CACTUS
OR SAHUARA
(Cereus Giganteus)

THE SAHUARA

THE STATE BIRD

At the same time as the legislation concerning the state flower was enacted the cactus wren was designated as the state bird. "The cactus wren, otherwise known as Coues' Cactus Wren or Heleodytes Brunneicapillus Couesi (Sharpe) shall be the state bird of Arizona." (Session Laws 1931, Chap. 68, Sec. 1.)



(THE CACTUS WREN)

CONSERVATION OF ARIZONA WILD LIFE

Arizona has developed from a rugged desert to its present state. Approximately a fifth of its area is Federal forest reserve; a third of the state is still unsettled. The state is rich in certain forms of plant and wild animal life. The conservation of these natural resources is an important task.

From time to time plants indigenous to Arizona have been removed for sale and transplantation. Especially at Christmas time have large numbers of cacti been sold and transported without the state. Various areas have been entirely denuded of all but the smallest plants. As plants grow slowly in regions of scanty rainfall the problem of conservation becomes a vital one.

In 1929 a law was passed forbidding the removal of all plants (except weeds) growing within two hundred yards of any highway. The law also designated certain protected groups of plants which may not be removed from any state or private land without the consent of the owner. (Session Laws 1929, Chapter 8.) These protected groups are as follows:

1. Polypodiaceae (Fern Family)
   - Gymnopteris triangularis (Gymnogramme)
   - Adiantum capillus-veneris (Common Maidenhair)
   - Woodwardia radicans (Chain Fern)
   - Asplenium alternans (Spleenwort)

2. Liliaceae (Lily Family)
   - Milla Biflora (Two-flowered Milla)
   - Lilium Parryi (Lemon Lily)
   - Fritillaria atropurpurea (Purplish-brown Fritillary)
   - Hesperocallis undulata (Desert Lily)
   - Cleistoyucca Arborescens (Joshua Tree)
   - Yucca whipplei (Our Lord's Candle)
   - Calochortus kennedyi (Red Mariposa Lily)
   - Calochortus aureus (Yellow Mariposa Lily)

3. Iridaceae (Iris Family)
   - Oriolirion arizonicum (Wild Iris)

4. Amaryllidaceae (Amaryllis Family)
   - Agave utahensis (Century Plant)
   - Agave Parryi (Century Plant)
   - Agave huachucensis (Century Plant)
   - Agave parvifolia (Century Plant)
   - Agave couesii (Century Plant)

5. Ranunculaceae (Crowfoot Family)
   - Aquilegia chrysantha (Columbine)
   - Aquilegia arizonica (Columbine)

6. Lobeliaceae (Lobelia Family)
   - Lobelia splendens (Red Lobelia)

7. Primulaceae (Primrose Family)
   - All species of the genus Dodecatheon (Shooting Star)
   - All species of the genus Primula (Primroses)

8. The following families and species:
   - Polemoniaceae (Gilia Family) Gilia aggregata (Scarlet Gilia)
   - Orchidaceae (Orchid Family) all species
   - Chenopodiaceae (Salt Bush Family) Atriplex Hymenelytra (Desert Holly)

Crassulaceae (Orpine Family) all species
Saxifragaceae (Saxifrage Family) all species
Leguminosae (Pea Family) Cercis occidentalis "Western Red Bud"
Leguminosae (Pea Family) Parosela spinosa "Smoke Tree"
Simarubaceae (Quassia Family) Holacantha emoryi "Crucifixion Thorn"
Sterculiaceae (Sterculia Family) Fremontia Californica "Flannel Bush" "Slippery Elm" "Leatherwood"

9. Cactaceae (Cactus Family)
Lemaircocereus thurberi (Cereus thurberi) "Organ Pipe" "Pitaya"
Lophocereus schottii (Cereus schottii) "Senita"
Carnegiea gigantea (Cereus giganteus) "Giant Cactus" "Saguara" "Sahuara"
Peniocereus greggii (Cereus greggii) "Night Blooming Cereus"
All species of the genus Echinocereus (Porcupine Cactus)
All species of the genus Ferocactus (Echinocactus) "Barrel" "Niggerhead" "Bisnaga" "Visnaga"
All species of the genus Echinomastus (Echinocactus) "Hedgehog Cactus"
All species of the genus Echinocactus "Hedgehog Cactus"
All species of the genus Sclerocactus (Echinocactus) "Hedgehog Cactus"
All species of the genus Coryphantha (Mammillaria) "Pincushion Cactus"
All species of the genus Phellosperma (Mammillaria) "Fishhook Cactus"
All species of the genus Neomammillari (Mammillaria) "Fishhook Cactus"
Opuntia santa rita "Red Blade Prickly Pear"
Opuntia stanlyi "Stanly's Cholla"
Opuntia Parishii "Parish's Cholla"

Arizona has considerable wild game. Deer, quail, doves, ducks, and fish are of interest not only to sportsmen but also to other citizens of the state. The seasons and the bag limits concerning fish and game are fixed either by law or by regulations of the Fish and Game Commission, and every effort is made to encourage the increase of Arizona wild life.

However, legal enactments alone are not an adequate nor satisfactory means of insuring conservation. Laws can be provided which will restrict the picking of wild flowers, prevent wholesale destruction of quail and other game, and make it a misdemeanor for campers to be careless with fire. This legislation has a real place especially for those who may be thoughtless or deliberately inconsiderate. The school may aid in educating young people to foster conservation by means of the material of courses in civics, geography, and natural science. Some phases of conservation may properly be used as subjects for oral and written composition. Ultimately, conservation of Arizona resources, including Arizona wild life, will be promoted more effectively by thoughtful intelligence than by definite laws.